

ley cannot be differentiated from *trilineata* of the Ohio River without straining of imagination.

On the third page of the cover of Number 3 of "A Monograph of the Limniades or Freshwater Univalve Shells," July, 1841, Haldeman wrote down *Mudalia* as a subgenus for his *Anculosa affinis*. In the way of description for the species he gave only these few words: "I propose this name for a shell allied to 'Paludina dissimilis,' Say, but which differs from it in having a slight tooth upon the columella. Hab. Ohio, Mrs. Say." Tryon considered the diagnosis insufficient, and the figure he gives of the shell looks like *Lithasia obovata* (Say). Ohio, of course, would be outside the territory of anything closely resembling *dissimilis*, though all right for *obovata*. *Mudalia*, therefore, seems to be unavailable as a generic name for the *carinata* group. The next name proposed was *Nitocris* H. & A. Adams, "The Genera of Recent Mollusca," part XXV, March, 1856, p. 308. Of the twelve species listed under *Nitocris* by these authors, only one, *ebena* Lea, does not belong in this place.

A REDEFINITION OF POLYGYRA ALBOLABRIS MAJOR

BY ALLAN F. ARCHER

Polygyra albolabris major (Binn.) is a form the identity of which is still hazy in the minds of many conchologists. The usual conception of this form is that it is a large variety of *Polygyra albolabris* (Say). An examination of a large series of specimens in the collection of the Museum of Comparative Zoology, Cambridge, Mass., shows that size should not be a test in defining this form. Some very large specimens of *P. albolabris* have been collected in eastern Tennessee and southeastern Kentucky and have been considered by several writers to be *P. albolabris major*. In the Proceedings of the Academy of Natural Sciences of Philadelphia, 1900, p. 120, Dr. Pilsbry in his article on the Mollusca of the Great Smoky Mountains expresses some doubt as to whether the large forms of eastern Tennessee can be rightly considered

as *major*. A series of *albolabris* from Scott Co., Virginia, includes several very large specimens, the largest having a diameter of 41 mm. This exceeds a great many Georgia specimens in measurement. Accordingly if size were the test this series would deserve to be included as *major* and not *albolabris*.

It is now becoming increasingly apparent that size is not a good test for determining North American *Polygyrae*. The best example of that fact is *Polygyra thyroidus* Say which varies greatly in size in certain localities. Therefore it is necessary to find other more permanent means of differentiating these two forms. The clue to the situation is to be found in Binney's description of *major*. Binney first noticed this form in series obtained by him from Georgia. On the basis of that material he described *major*. Later on in his *Land and Fresh Water Shells of North America, Smiths. Misc. Coll.*, Feb., 1869, he included Tennessee, Alabama, Florida, and South Carolina as habitats of *major*. Whether or not he was justified in considering it as a species distinct from *albolabris* is a matter of opinion. However, further anatomical material may be necessary to settle that point. Specimens of *major* from Georgia can be considered to be typical and therefore are a good basis for establishing its characteristics. There are two characters by which *major* may be readily distinguished from *albolabris*.

1. Sculpture

P. major

Axial striae crowded and fold-like.

Spiral lines almost absent or completely obsolete.

P. albolabris

Axial striae not crowded and broader.

Spiral lines always present and very definite, cutting rather deeply across the axial striae; closely crowded.

2. Aperture

Peristome narrow, thickened, rounded, with blunt not very expanded or sharp edge. Even in the case of submature specimens, the peristome though thin is quite narrow.

Peristome wide, thinner, flatter, with sharp and more reflected edge.

The parietal wall of adult specimens of *major* is covered with a thick callus which seldom occurs even in the largest and heaviest specimens of *albolabris*. The inner margin of the peristome of *major* always possesses a tooth-like process, but this equally occurs in many specimens of *albolabris* particularly from eastern Tennessee and southwestern Virginia. Some specimens of *major* are very globose, particularly examples from Whitfield and Walker Counties, Georgia. Others are fully as depressed or subglobose as typical *albolabris*. Examples of this latter type are too numerous to mention.

Reddish-horn color or chestnut is the usual color of *major*, but in this character it differs not at all from many *albolabris*. A few specimens from Habersham Co., Georgia are rather lighter than the normal. The peristome is a definite white contrasting thus with the rest of the shell.

The range of *major* extends from coastal North Carolina to Alabama. It is found in coastal South Carolina, central and coastal Georgia, northern Florida. *Major* is found all over Georgia even in the mountainous country of the northwest where it overlaps *Polygyra normalis* Pils. in range. The evidence at hand seems to indicate that it does not get into the mountains of South Carolina, but is there replaced by *P. normalis*. It is found in eastern Alabama but seldom attains the size of some examples from Georgia. It overlaps *P. albolabris fuscolabris* Pils. in range.

The range of *albolabris* is wide, being found in Canada east of the Rocky Mountains, and chiefly east of the Mississippi River in the United States. The typical form is found throughout this area as far south as coastal North Carolina and in the Mississippi valley as far south as Kentucky. In southwestern Virginia a typical form appears. In that region it is very large, thick-lipped and often darker than typical *albolabris*. It is absent in the mountainous area of western North Carolina except on the very western edge of the Roan mountain region. There a large rather globose form, light in color but with a pinkish spire is prevalent. It also occurs in eastern Tennessee. The area lying between eastern Tennessee and the Mississippi River is characterized

by yet another form of *albolabris*. It is depressed with a very flat broad base. This form is found throughout most of Kentucky.

Polygyra albolabris alleni Wetherby occurs chiefly west of the Mississippi where the range of *albolabris* practically ceases. Mr. C. N. Wettengel has found specimens of this at Hamilton, Illinois. This is one of the few known instances of its occurrence in that area. The possible explanation of this may be due to a change in the river bed. *P. a. alleni* is a readily distinguishable form.

MOLLUSKS AND BARNACLES FROM MALPELO AND COCOS ISLANDS

LEO GEORGE HERTLEIN

Malpelo Island is a rugged, barren mass of rock about a mile long, in the Pacific Ocean southwest of Panama City and about 250 miles west of the mouth of the San Juan River in Colombia. It lies in latitude $4^{\circ} 03' N.$, longitude $81^{\circ} 36' W.$, and appears to be composed wholly of volcanic rock. It was noticed by Colnett in July, 1793, and was probably sighted by other early navigators. Politically, Malpelo belongs to Colombia. Slevin¹ included a photograph of it in a paper published in 1928.

In December, 1931, Mr. C. B. Perkins, herpetologist, of Denver, Colorado, landed on the island and spent about an hour, collecting for the San Diego Zoological Society. This was accomplished during an expedition to the Galapagos Islands on Captain G. Allan Hancock's yacht *Velero III*.

Mr. Perkins collected on the island, a number of lizards, belonging to the species *Celestus hancocki* Slevin. He also secured two species of marine gastropods and one species of barnacle. These he presented to the writer and they are now in the collections of the California Academy of Sciences. The

¹ Slevin, J. R., Description of a new species of lizard from Malpelo Island. Proc. Calif. Acad. Sci., Ser. 4, vol. 16, No. 21, pp. 681-684, plates 25 and 26, February 28, 1928.